

MEMO

TO: Energy & Environment Committee
FROM: Nancy Pfeffer, Sr. Regional Planner, 213-236-1869, pfeffer@scag.ca.gov
DATE: November 6, 2003
SUBJECT: California Air Resources Board Air Quality Handbook on Land Use

SUMMARY:

The California Air Resources Board (ARB) staff is preparing a handbook to provide local agencies with guidance on addressing cumulative impacts of air pollution associated with land use. Staff of the ARB will brief the Committee on the development of this handbook.

BACKGROUND:

The California Air Resources Board's mission is "to promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state" (from the agency's web site). In 2001 the Board adopted an environmental justice policy (see <http://www.arb.ca.gov/ch/programs/ej/ej.htm>) and since that time has continued to work with a stakeholder group, in which SCAG staff participate, to develop additional related documents and guidance. A Complaint Resolution Protocol, for example, was adopted in October 2002 (see <http://www.arb.ca.gov/ch/programs/complaint.htm>) to help ensure timely and effective response to public complaints relating to air quality.

Currently, ARB staff is working with the stakeholder group to develop an Air Quality Handbook on Land Use, designed to help local land use planners and decision makers identify and address cumulative emissions impacts. The handbook was issued in initial draft form in August 2003. In addition to the local agencies responsible for air quality and land use planning, the ARB sees the audience for the handbook as including related federal, state and regional agencies, community organizations, and developers.

One issue that has arisen during the stakeholder meetings addressing handbook development is the relationship between air quality, environmental justice, and land use decisions. In particular, ARB staff have voiced a concern that pressures on local jurisdictions to meet affordable housing goals may lead to the siting of low-income housing in environmentally undesirable areas.

A copy of the initial pages of the draft handbook, including the Purpose and a series of questions that form a Table of Contents, is attached.



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AIR QUALITY HANDBOOK ON LAND USE

California Air Resources Board

October 2003

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A Preface and Acknowledgment will be inserted in the final draft.

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Purpose

Land use agencies can play an important role in helping to improve air quality in California communities. These local government agencies make critical decisions regarding individual projects as well as adopting plans that will shape the future. While the Air Resources Board (ARB) and local air pollution control districts (local air districts) are primarily responsible for programs to improve air quality, land use agencies can help by ensuring appropriate project location, design, and mitigation of adverse impacts.

Local government land use policies and plans assist county and city decision-makers in guiding future development by advocating a long-term, comprehensive approach to planning which balances the diverse needs of its citizens. Land use planning agencies strive to achieve these goals in a number of ways. These include:

- Providing decision-makers and the public with accurate information with which to make informed decisions;
- Improving the quality of life by protecting the environment and local communities while balancing the need for economic vitality;
- Collaborating with other agencies to achieve public goals; and
- Ensuring community involvement in the decision-making process.

As land use agencies carry out their responsibilities, it is important to recognize that land use decisions can have a direct impact on community exposures to air pollution, affecting public health and the quality of life. The results of these decisions can be positive or negative from an air quality perspective. For example, there are now incompatible land uses in some communities due to historic land use and zoning practices. The primary purpose of this handbook is to avoid such situations – providing the opportunity for a positive public health outcome.

Key decisions involving air quality often relate to the proximity of emission sources to the nearby public, the concentration of air pollution sources in a particular area, and decisions that affect allowable land uses. To be effective, the decision-making process should address not just large industrial facilities, but also small, commercial businesses such as dry cleaners and gas stations. Additionally, “indirect” sources of air pollution should be addressed. Examples are transportation corridors, warehouses, and distribution centers that contribute to air pollution through increased traffic -- both cars and trucks.

Land use decisions that can pose a public health risk are often the result of where a land use agency allows a new project to be sited. Even the best available control technology, some air pollution sources should not be sited very close to homes, schools, and other places where public exposures would be high. It is also important to consider the appropriateness of a new project’s location in light of existing air pollution impacts in the community. In general terms, this is often referred to as the issue of “cumulative impacts.” ARB is working with air pollution control districts to better define

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these situations and make the information more readily available to land use agencies. This handbook discusses the sources and mechanisms for obtaining this type of information.

ARB wants to work with land use agencies and local air districts to improve the information available to local decision-makers in order to prevent or reduce the air pollution impacts of new projects in all communities. Development of an air quality handbook for land use agencies is also a specific action included in the ARB's environmental justice policies. These policies also recognize that access to information and meaningful participation by community members is an important part of the decision-making process.

Based on what we know today about air quality impacts related to land use, this handbook focuses on two fundamental considerations related to new project siting: (1) the proximity of new emission sources to homes, schools, and other sensitive locations, and (2) the concentration of air pollution sources or projects in an area. We also discuss how land use development policies can play a role in preventing future air quality problems.

This Air Quality Handbook on Land Use (Air Quality Handbook, or Handbook) builds upon earlier efforts to implement the 1988 California Clean Air Act. Among other things, the California Clean Air Act called upon local air districts to focus particular attention on reducing emissions from transportation sources, including those sources that indirectly cause emissions by attracting vehicle trips. Such indirect sources include shopping centers, schools and universities, employment centers, medical offices, and other facilities. The 1997 ARB report, "The Land Use-Air Quality Linkage" summarizes available data on the relationships between land use, transportation, and air quality. The report highlights strategies that can help to reduce the use of single occupancy automobile use. Such strategies complement ARB regulatory programs that to continue reduce motor vehicle emissions.

Much of this Handbook focuses on land use decisions related to stationary (e.g., industrial or commercial) sources of air pollution. However, mobile sources (e.g., cars, trucks, trains, and ships) are the largest overall contributors to the State's air pollution problems, and air pollution from these sources represents the greatest air pollution health risk to most Californians. Based on current health risk information for air toxics, the most serious pollutants on a statewide basis are diesel particulate matter (diesel PM), benzene, and 1,3-butadiene, all of which are primarily emitted by motor vehicles.

Over the past decade, ARB's actions have resulted in large reductions in motor vehicle emissions. Diesel PM emissions have decreased approximately 40 percent since 1990, and our goal is to decrease emissions by an additional 75 percent between 2000 and 2010 with new proposed regulations and stricter emission control requirements. In addition, California has seen a decrease in measured benzene emissions from air quality monitors of more than 70 percent since 1990 through actions such as improved

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fuel formulations and reduced vehicle exhaust emissions. At the State level, ARB continues to pursue new strategies to further reduce motor vehicle emissions in order to attain air quality standards and reduce air toxics risk. However, local actions are also needed.

Land use agencies, in cooperation with local air districts, can help reduce air pollution impacts in their specific communities. The Air Quality Handbook is intended to serve as an informational document for use as land use agencies adopt or revise general, regional, and community plans and zoning ordinances, conduct environmental reviews, site projects, and issue permits. It has the following objectives:

- Encourage stronger collaboration between land use agencies and local air districts to promote land use policies that minimize community exposure to and impacts from source-specific and cumulative air pollution;
- Improve and facilitate public access to air quality data collection and evaluation tools that can be used in the land use decision-making process;
- Identify approaches that land use agencies and local air districts can use to prevent or reduce potential air pollution impacts associated with land use development, siting, and permitting; and
- Identify community outreach approaches that promote a meaningful role for the public in the air quality/land use decision-making process.

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For whom is the Air Quality Handbook intended and how is it organized?

Handbook Audience

While the primary users of the Handbook will likely be agency representatives responsible for air quality and land use planning, the ideas and technical issues presented in the Handbook may also be useful for:

- public and community organizations and community residents;
- federal, State and regional agencies that fund, review, regulate, oversee, or otherwise influence environmental policies and programs affected by land use policies; and
- private developers.

Organization of the Air Quality Handbook

The Air Quality Handbook is organized into 14 Sections that follow a logical progression of questions:

1. Why is an Air Quality Handbook on Land Use necessary?

This section will be developed for the next draft.

2. What is the relationship between land use and air quality?

This Section provides general background on why regional and community-level air quality is inextricably linked to land use and why significant improvements in air quality at the regional level have not always been sufficient to resolve some localized problems.

3. What are the respective roles and responsibilities of government agencies in avoiding or reducing air pollution impacts from land use policies, plans, siting, and permitting decisions?

This Section describes the respective roles and responsibilities of local land use and air pollution control agencies in permitting and land use decisions. The Section also discusses the roles and responsibilities of other State and local agencies in the land use development and siting process.

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4. What are the respective roles and responsibilities of local school districts, land use agencies, and local air districts regarding school siting?

This Section describes the respective roles and responsibilities of school districts, local land use agencies, and local air districts in siting new schools. This Section identifies the separate and autonomous role that school districts have in the facility siting process.

5. What is the current process for addressing the air pollution impacts of land use projects?

This Section describes the existing regulatory process for evaluating and reducing or avoiding air pollution impacts from air pollution sources.

6. What land use policies should be used to prevent or reduce air pollution impacts as a result of new projects or developments, or past land use practices?

This section will be included in the next draft.

7. For what types of air pollution sources is it advisable to perform an additional analysis, and what actions should be considered if there are impacts?

This Section describes what actions a land use agency or local air district should consider if they determine that the existing regulatory process falls short of preventing or reducing a potential localized air pollution impact from industrial or major transportation sources to a nearby community or sensitive receptor.

8. What is meant by the concept of cumulative air pollution impacts?

This Section discusses the concept of cumulative air pollution impacts.

9. How does addressing cumulative impacts differ from traditional approaches to address air pollution concerns?

This Section discusses how addressing cumulative air pollution impacts on a community scale may differ from the traditional approach for evaluating air quality impacts.

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10. What factors should land use agencies consider to identify communities with cumulative air pollution impacts?

This Section discusses criteria that land use agencies might want to consider to help identify, prioritize, and address air pollution problems in those communities that are potentially exposed to cumulative air pollution impacts.

11. What type of information is needed to conduct a cumulative air pollution impacts analysis?

This Section identifies the types of information that will be needed to conduct a cumulative air pollution impact analysis and where some of the information can be found.

12. What information and tools can ARB and local air districts provide to help assess the potential cumulative impacts?

This Section identifies and describes technical information and tools that ARB and local air districts have available or are developing to assess potential cumulative air pollution impacts.

13. What actions should be considered if the analysis finds that there are cumulative air pollution impacts?

This Section describes different approaches that can be used to prevent or reduce emissions, exposure, and health risk in communities that may be affected by cumulative air pollution impacts and a new project is proposed.

14. How can information about cumulative impacts be provided to the public?

This Section suggests ways that local land use agencies and local air districts can work together to inform and involve the public and project proponents in the land use decision-making process. This Section includes information on conducting public outreach with affected communities, establishing environmental justice staff training, disseminating public information materials, working with community-based organizations, and overcoming language limitations.

Technical Supplements

The Air Quality Handbook also incorporates Technical Supplements. The Supplements include information that land use agencies and local air districts can use to review projects and other land use related activities that have the potential to cause air pollution problems. Some Technical Supplements contain information on technical tools that can be used to access information about air pollution sources and identify areas

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that may have cumulative air pollution impacts. The Technical Supplements will be added to the Air Quality Handbook as information becomes available.

Additional Features

The Air Quality Handbook also contains several features that are intended to make the document more useful to a wider audience. These elements include:

- a contact list of pertinent federal, State, and local agencies;
- links to answers for Frequently Asked Questions (FAQs) that automatically connects the reader to information on topics of interest;
- glossary of frequently used acronyms and abbreviations;
- sidebars that provide examples, explanations of key terms, or brief overviews of items being discussed; and
- information on how to access a statewide clearinghouse of actions taken by local governments and local air districts that have been effective in reducing cumulative air pollution impacts.